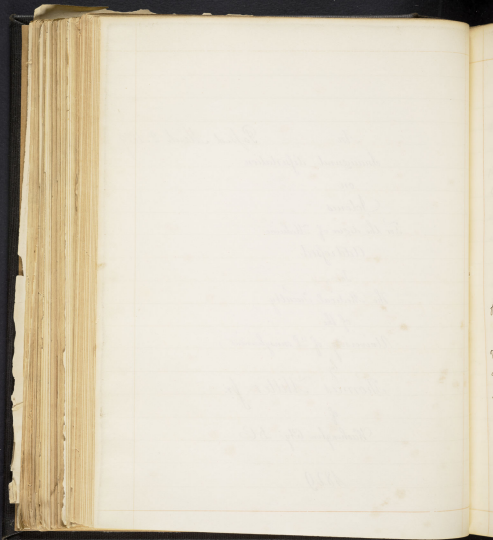


An Inaugural dissertation  
on  
Icterus  
For the degree of Medicine  
Addressed  
To  
The Medical Faculty  
of the  
University of Pennsylvania  
by  
Thomas Miller Jr.  
of  
Washington City D.C.

1829



Reading of January 2

To

Doct. Henry Hunt

of

Washington City,

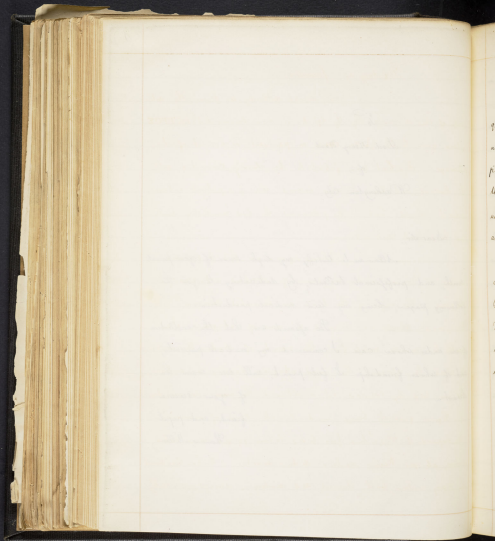
Dear Sir,

Allow me to testify my high sense of your private worth, and professional talents, by dedicating to you the following pages, being my first medical production.

Be assured sir, that the recollection of one under whose care I commenced my medical pursuits, and of whose friendship I feel proud, will ever warm the breast—

of your sincere  
friend, and pupil

Thomas Miller





### History of Jaundice

From ancient authority we learn the antiquity of this disease. By the Greeks it was denominated ΙΚΤΕΡΟΣ a term given to the Golden Pheasant, or pheasant on account of its plumage. This bird was fabled to be closely connected with the disease, and hence it was believed that if a patient labouring under it should look at the pheasant, the bird immediately died and the patient recovered.

Celsus informs us that it prevailed among the Romans under the name of Morbus Argyreus, or Regius. The origin of the terms are somewhat curious. My Jaundice should have received the name of Argyreus, I am unable to conceive, unless from the variety of shades the disease is wont to assume, the word Argyreus, meaning a rainbow. We are told by Celsus, that it obtained the name denomination of Regius, from its being cured by all kind of expenses. He explains it thus, 'Ipsa pecunia ludis lacinia perque mens exultatur, atque Regius malus dicitur videtur'. It has been used by many writers, both Ancient and modern, Aurigo, evidently

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in consequence of its golden colour,

Idiocy prevails most frequently in warm climates, attacking promiscuously persons of all ages, sex, and condition. Thus we are told by an author of much celebrity, that no age or sex escapes. It is incident to infancy, and every subsequent period of existence. Generally, however it is met with in those somewhat advanced in life, and more perhaps in males than in females; tho' the difference is not so great as is generally supposed; "men, women and children are equally liable to the malady." In a continued succession of one hundred patients "I counted" says Aberdon fifty two males, and forty eight females. Those who are most subject to this disease are the studious, the sedentary, the indolent, the Hypochondriac, the hysterical, and those who acquire at least position in attending to their avocations. It occurs frequently in the dissipated, and more particularly in the intemperate, and debauched, and persons who are afflicted with local complaints. Those who have been once attacked with jaundice are very liable to a recurrence of it.

It has been attributed to a great

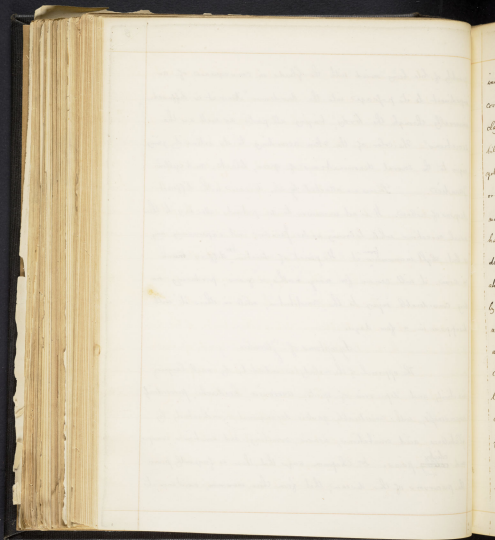


quantity of bile being mixed with the fluids in consequence of an impediment to its passage into the duodenum. Hence it is diffused, universally through the body, tinging all parts as well as the secretions. The color of the skin according to its intensity, gives origin to the several denominations of green, black, and yellow jaundice.

Persons are attacked by this disease with different degrees of violence. It is not uncommon to see patients attending to their usual avocations while labouring under jaundice; and experiencing any, or but slight inconvenience <sup>from</sup> it. Its period of duration <sup>lasts</sup> differs much in some, it will remain for many months, or years, producing no very considerable injury to the constitution, while in others it will disappear in a few days.

### Symptoms of Jaundice

The approach of the malady is indicated by much languor, inactivity and depression of spirits, anorexia, headache, precordial uneasiness, with considerable gastric derangement, indicated by flatulency and eructations, nausea, vomiting, and sometimes, cramps, and ~~chills~~ <sup>chills</sup> pains. Dr. Chapman says that these so frequently prove the precursors of this disease, that from their invasion, existence, its



invasion with some, may certainly be predicted. The bowels are sometimes constipated, and when in this state, the stools present an of ashy or clay colour. Sometimes there is much leucorrhoea - copious excretion of white matter taking place. The urine is commonly scanty, and of a yellow brown, or saffron hue; staining linen which is dipped in it of an orange colour. There is sometimes an unpleasant taste in the mouth. The tongue it is said is rarely changed. The patient has great thirst, loss of appetite; all the secretions are more or less diminished. The disease continuing for some time, will often emaciate the patient very much. These symptoms are soon succeeded by another series. The skin which from the first was dry, is now attired with a most troublesome itching. The adaxils of the eyes and the skin of the breast, chest and neck become tinged of a yellow colour, which in some cases spreads over the whole body paragonically, but in others is confined. I have seen, says Dr. Chapman, (the colour) restricted, to the eyes, and many often embracing only the face. As a anomaly it is sometimes confined to a longitudinal section of the body. Broussais says he records a case attended with hemiplegia, when the pained side only was so exclusively

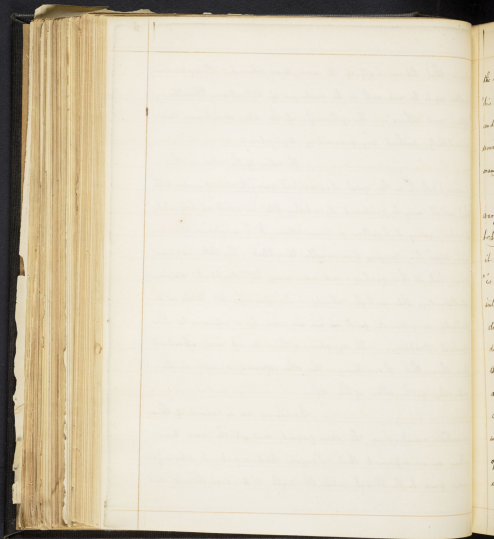




interior, that but one half of the area was colored. Examples nearly similar, are to be met with in the writings of Valdesco, Et Mueller, Defini, and others.<sup>9</sup> The yellowness of the skin sometimes comes on suddenly, without any precursory symptoms.

The colour of the skin in this disease, [which is the great diagnostic] generally corresponds with that which may be produced by adding bile to a certain quantity of water, giving it a yellow or limon colour. It is sometimes of a much deeper hue, varying from a yellow to a black. The latter so rarely occurs, that it has perhaps induced many to doubt its existence notwithstanding there is high authority in its favour, Dr Baile is undoubtedly an advocate for it as we may see by a reference to his medical Anatomy. The symptoms of this do not vary essentially from those that characterize the other species, except in the intensity of the colour of the skin.

Icterus are on record of three varieties existing in the same patient, and at the same time. Thus we are informed that Langoni had a patient whose face was green to the throat, while the right side was black, and,



the light yellow. The white finally becomes yellow, as an attack of jaundice has advanced far enough to exist, accompanied with alternate chills and heats. There is often more or less delirium, partial spasms, or universal convulsions. Sometimes the fever is violent, coming on after many of the other symptoms have lasted some days.

The pulse in jaundice is said to vary much; in some attacks it is not at all or but slightly affected. In others it is quicker and stronger than usual. At times it is preternaturally slow and hard. "The pulse" says Dr. Chapman "is full, hard and strong, and sometimes hobbling, and even intermitting". Numerous are the cases in which there is little or no disturbance of the circulation, as the disease advances the difficulty of breathing increases, with palpitations of the heart, also the excruciating and anxiety about the precordia. The languor and debility go on increasing, with dullness and stupidity almost to fatuity. It is said that the sight is much affected, in jaundice, every thing appearing a kind of yellow hue. This opinion does not seem to be universally entertained. By some writers it is positively denied, while, by others it is strenuously



adverted as a constant occurrence. Dr. Chapman says in speaking of it. "My allusion is more particularly to all objects being seen of a lurid or yellow hue, and which was early observed as appears from the following lines of Suetonius, *Linda praetoria fuit, quaequeque tentus argentei &c*"

He says he is then medical testimony goes to the same effect, as that of Galen, Sydenham, Boerhaave, Van Swieten, Hoffman, and others, who affirm we have seen it. But long and general as has this notion been entertained, it is doubted by some whether there is any foundation for it; and certainly it is by no means a common occurrence. The fact was first denied, by Mercurialis, and Haller. And by Robert den were we told, that of all his icteric patients, he had but two who confessed its existence, and this testimony he distrusted. Dr. C's experience is against it.

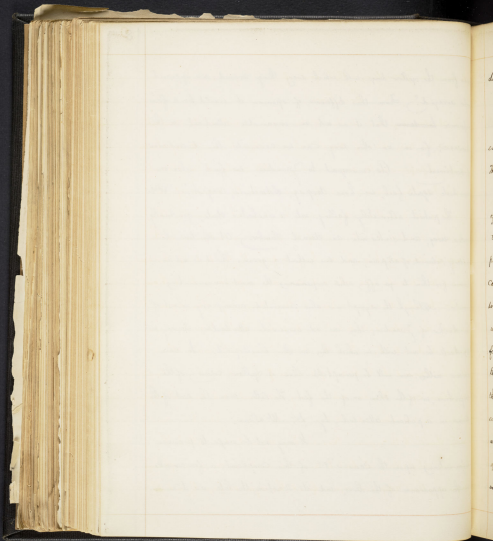
Dr. Ford in his study of medicine, says "when a student by long continued pressure of the epigastrium against the edge of a table &c. I can confirm this general opinion; for the first suspicion I had of being affected with jaundice



was from the yellow tinge with which every thing around me appeared to be arrayed.\* From this difference of opinion it would be a fair inference ~~to draw~~, that it is not an invariable attendant on the disease; for in no other way can we reconcile the discordance of sentiment. As consequent to Jaundice, we find, when our renal ducts again fail, we have Dropsy, Obstructions, Congestions &c.

The patient ultimately falling into a cachectic state, gradually wastes away, and sinks into an eternal slumber. At other times he is suddenly relieved of all pain, and dies without a groan. This is not uncommon for him to go off, while experiencing the most excruciating torments. Although the symptoms above enumerated, accompany most of the attacks of Jaundice, they are not universal attendants. Scarcely will an attack be met with, in which they are all developed. In some cases neither more will be perceptible than a yellow colour of the conjunctivae, or of the skin, or of the face. The latter was the seat of the disease in a patient attended by Dr. McLean.

It may not be amiss to premise before entering upon the Causes &c. of this complaint, a few remarks on the appearance of the liver, and its position, the lute, as I is



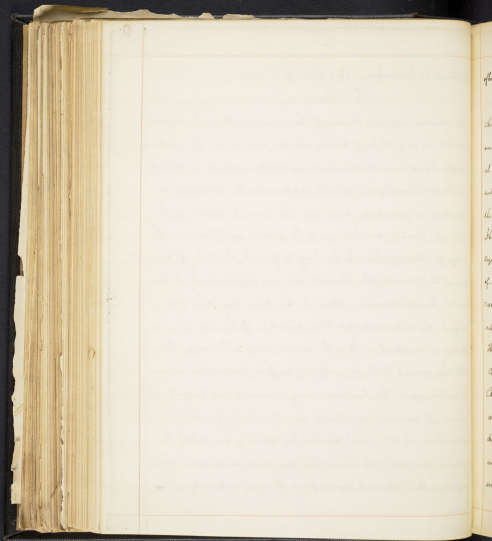


discussed in Jaundice, And first of

*The Liver*

The situation, size and structure of this organ, as well as its constant existence in every class of animals, at once show to us its importance. The office it performs in the animal economy, is still enveloped in obscurity.

No two Physiologists exactly agree as to the manner of its operating in promoting digestion. Tho' they all concur in this; that its peculiar secretion is of the utmost importance in the process of Assimilation. The liver being so frequently the seat of disease, caused the Ancients, (who attached even more importance to it than we do) to refer diseases oftener to this than any other organ; in fact they seldom extended their dissection farther than this—supposing it diseased. It is this circumstance, with many others, that has caused it to be an object of curiosity, and importance since the earliest ages. They have indeed many experiments and frequent dissections. The prevailing idea that it was the seat of Jaundice, was another stimulus to the ingenious theorists. They appear to have settled this question satisfactorily (at least to their own minds) in consequence of having, in pursuing their anatomical inquiries, found the organ so frequently, and



often so extensively discolored, in icteric bodies.

Dissection has shown the liver much enlarged, engorged, changed in color, generally partaking of that of the rest of the body, sometimes much lighter, again darker, and not infrequently of a natural color. It is at no time indurated, at another soft. Gallstones of various sizes, as well as numbers (from that of an egg to that of a pea) have been found in the ducts and Gallbladder. The liver has been found very small. I have seen a dissection, where the liver was found very much reduced in size, and what remained appeared to be entirely diseased. The whole of the internal structure of this organ has been destroyed by suppuration, as was the case in a patient of Dr. Thomas Swell. It is not uncommon in icterus to find the liver entirely clear of disease. Thus says Broussais "Frequently in icteric bodies, there is no morbid condition of the liver, no taint of the ductus biliferi, and no bilious Calculi." Abernethy confirms this remark. Some of these appearances are peculiar to Jaundice; the have nearly all been discovered in different dissections of other diseases. On taking a view of the liver we should take into consideration, in the first place a long prevailing error (i.e.) that the liver in Jaundice is secreted either in or the same quantity

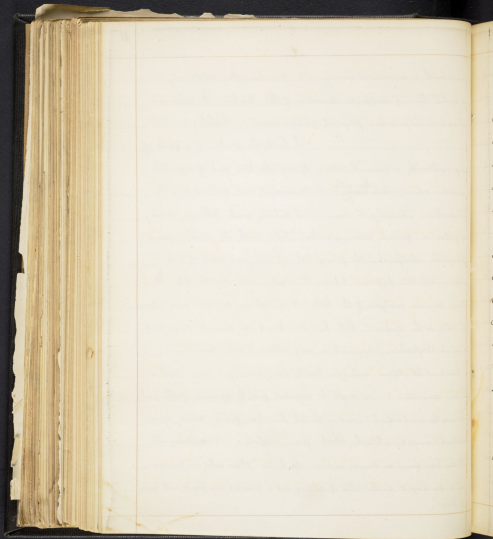


as in health, or in increased quantity. Lab. observations have satisfactorily shown to us that there is a considerable diminution of this secretion. It is too much changed in its properties, physically, perhaps as well as chemically.

In health the secretion is a fluid of deep yellowish, or greenish colour; Of very little taste, and of a peculiar aromatic odour, ~~but~~ <sup>then with</sup> ~~strongly~~ in its exhalation, and more varied in its composition. According to analysis, it contains water, albumen, mucus, a yellow or greenish colouring matter, Soda, with its Salt, mucic phosphat Sulphur - the phosphat of lime, and oxide of iron.

There is but little difference between the cystic and hepatic bile. I have seen even an analysis of the latter: it is not so viscid and intense in color, as the cystic. Bile has been termed an animal soap, and, from its composition, it appears to be justly entitled to that denomination.

Jacundated bile differs much from healthy bile: generally it varies much in color, consistence &c. as might be expected from the appearance of other parts. To use the words of Dr. Ford, "the bile has been found acid, acid, saltish, insipid, whitish, black green, sanguineous, viscid, &c." It has been found as dense, and as dark as elder colly, as tenacious and as limpid as the white of an egg, and as viscid, and granular with spears of frogs.



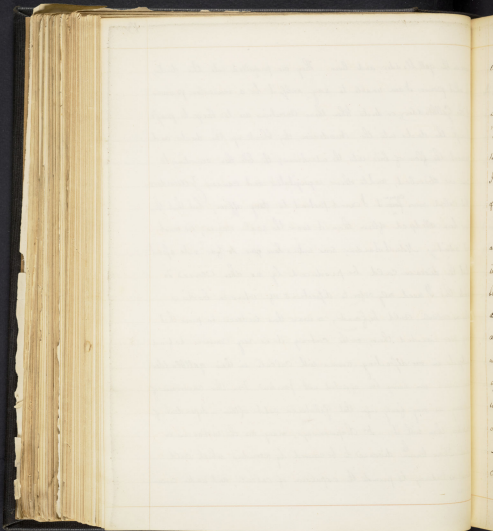
## Causes

The remote or existing causes of Icterus, are numerous, and diversified; and according to the best authority, much difference of opinion exists respecting them. Many men are considered as causes of this disease, than have any agency in producing it, and many have been omitted, in the common details of causes which most frequently give rise to this disease. The following Catalogue constitutes the specified causes of every writer on the subject which I shall notice—first—Inflammation it is believed produces the disease by causing a thickening of the coats of the ducts, thereby lessening their calibre. It acts in a second way by affording an inflammatory exudation, which serves as an nucleus for the subsequent formation of Calculus. Inflammation of the substance of the liver it has been observed does not produce jaundice, unless it extends to the ducts; Nephritis is adduced as an example. This must probably in the former case, for we seldom or never see the diseases combined. The second Cause of Jaundice is biliary Calculi. There are connections of various compositions that





form in the gall bladder, and liver. They are propelled into the ducts, by what power I am unable to say, unless it be a muscular power of the Gallbladder, or ducts. When these concretions are too large to pass through the ducts into the duodenum, they block up the ducts and prevent the flow of bile into the intestines; the bile then according to some is absorbed, and to others, regurgitates and causes Jaundice. Not ~~calculi~~ <sup>concreta</sup> ~~never~~ <sup>from</sup> I cannot pretend to ~~strongly~~ affirm, but that they have been obliedged <sup>often</sup> than it was the real cause; we must all admit. Admitting, some writers have gone so far as to assert that the disease could be produced by no other cause. To refute this I need only refer to dissections of icteric bodies who no calculi could be found, or was there evidence to prove that any ever existed there, on the contrary it is very common to find subjects in our dissecting rooms with calculi in their gallbladder, &c. without ever having been affected with jaundice. From this circumstance of history we may fairly infer that Gallstones exist often independent of jaundice, than with it. Dr. Chapman says, many are the instances in which I have known <sup>the</sup> disease to be caused by parasites, which could have no tendency to promote the expulsion of calculi, and under circum-  
stances



that absolutely precluded the suspicion of its existence.

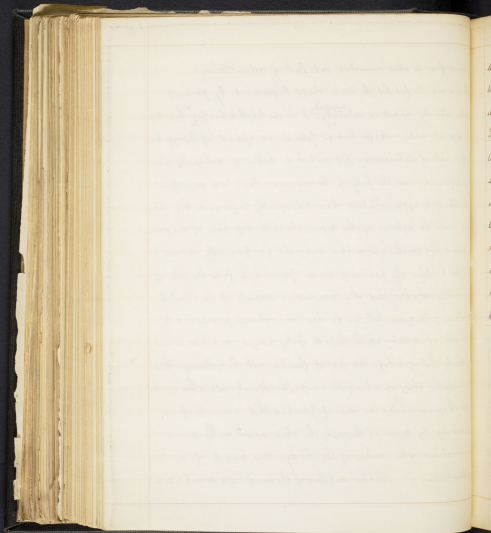
Of the third cause, or Spasms of the ducts we need say but little, popular sentiment has <sup>very</sup> been so universally in favour of it, though many <sup>qualified physicians</sup> authors support it, as a frequent cause of jaundice, among those who deny its existence, are DeBorden, Soc, with a variety of others, I am not aware that we have any mode of discriminating, between spasms of the gall duct, and those of the stomach, and duodenum.

The fourth cause, Hæmours, as well as the fifth Inflamed mucous and like the preceding, the occurrence of jaundice from these I should be inclined to think (if ever it occurs) must be rare. Examples of stomach blocking up the biliary ducts, are recorded as having preceded the disease. There is a liver in the British museum which contains a great number of worms of this species - The patient, we are informed from whom it was taken, died of jaundice. Pregnancy has been spoken of as a cause of jaundice; whether it arises in this situation of women, from a pressure of the uterus on the ducts, (as is the prevailing idea) or whether from a peculiar state of the system, I am not prepared to say. Since it is in pregnant women, there is a great predisposition to catarrhus affectious. Have yet to speak of a class of causes quite



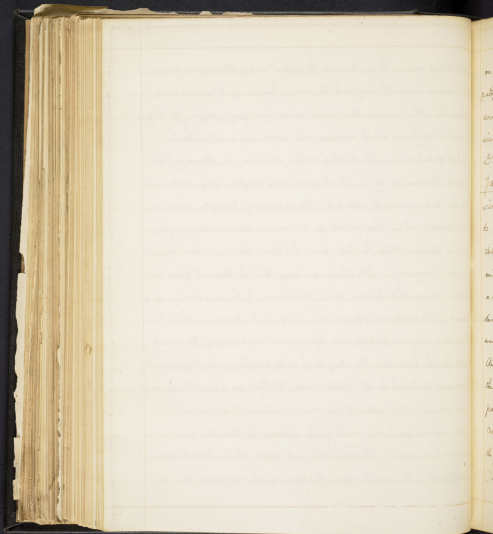
distinct from the above enumerated, and first, of Certain Poisons.

It is a curious fact that the disease should be produced by poisons taken internally, as well as <sup>applied</sup> externally; it is one too that has long been known to medical writers. As far back as Galen are we aware of the effect of this class of substances. The celebrated author of antiquity we are informed, saw the body of the enormous slave, turn green from the bite of a viper. Tartara have subsequently confirmed this opinion, as to the influence of the viper. So is the experience of our practitioners left conclusive, on this subject; for frequently does the bodies of persons become jaundiced from the bite of the rattlesnake, and other venomous serpents of the United States. Langoni tells us he has seen icterus produced by the bite of a cat, which lasted forty days, and Van Swieten attributes that of a dog. We are all familiar with the yellowness that succeeds the sting of bees, the wasp, the Hornet, and other insects. Dr. Chapman relates a case of jaundice that occurred from poisoning by arsenic; he says, the skin, as well as the secretions of the canals of the body were tinged of a yellow color. Catarrh of the mind, is a second cause,



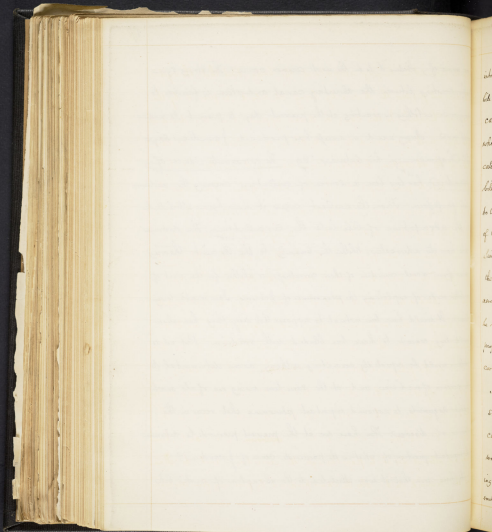
that I shall mention. It was known to the earliest writers, that an intimate connection existed between the body and the mind. Iamblicus may be taken as highly illustrative of this doctrine, thus has it arisen from grief, anger, joy, rage, terror, Anxiety, as also the irritating, and depressing moral influences.

A host of authorities might be cited on this occasion, as, Morgagni, Tissot, Boerhaave, &c. Dr. Chapman says excessive grief produced it in two ladies whom he attended. Excess in money has often caused the disease; it is therefore not an uncommon disease among young married people. Within the last year Dr. Harris has had two cases of this character. Dr. Chapman says that he learned from an Italian source, that it was once occasioned by the explosion of a bomb. These several cases are sufficient to prove that the disease may be produced by violent emotions of the mind; besides the fact that the Hypochondriacal, and Hysterical are very subject to it. Haller, states, that <sup>all</sup> who are harassed by mental distress, are liable to attacks of the disease. Criminals are subject to it and cured perhaps, as well by the sedentary life that they lead, as from mental disturbance. The third and last case which I shall mention is Intoxication. This perhaps often the cause of the complaint than we





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an cause of, & believe it to be the most common cause. The strong sym-  
pathy existing between the biliary canal and skin is familiar to  
everyone. Nothing is wanting at the present day to prevent its medi-  
cal men, though agreed in concept has produced jaundice says  
Dr. Chapman in his lectures. '29. The proximate cause of  
jaundice, has long been a source of contention among the medi-  
cal profession. From the earliest ages it has been attributed  
to the absorption of bile into the circulating system. This doctrine  
still has its advocates. Whether this belongs to the Ancient theory  
comes from a real conviction of their correctness, or whether for the want of  
a better mode of explaining the phenomena of Icterus, I am unable to say  
divine. It would have been natural to suppose that every thing humoralism  
would long ceased to have been blended with solidism. But not so  
Authors would be repeatedly expounding a theory, as one detrimental to  
the science of medicine, and at the same time using one of its most  
important arguments, to expound important phenomena that occur in the  
course of disease. Then have we at the present period to determine  
the important question, of what is the proximate cause of jaundice?  
I have seen that it was attributed to the absorption of syphilitic bile



into the circulation tinging all parts of the body. But that the cystic  
bile does not produce the disease by being absorbed is proved by the  
case of Richter. In this case, the disease appeared in a individual  
who after death was found to be destitute of gallbladder. The advo-  
cates of the absorption doctrine, would now say, it was the hepatic  
bile - but to prove emphatically the contrary of this - I must refer them  
to the experiments of Portal, who tied the ducts so as to obstruct the passage  
of the bile completely, and no icteric symptoms were induced.  
Similar experiments were performed by Dr Thomas Ewell of Virginia;  
the hepatic ducts being tied without causing the disease. Bile has  
never been detected in the blood that I am aware of, we would readily  
be led to suspect that so peculiar a fluid, and possessing such marked  
properties, did it enter the circulation, could without difficulty be dis-  
covered by its physical properties; but this is not the case,

Another objection to this idea is, that the disease often comes on too  
suddenly for the bile to be taken into the circulation, Thus in the  
case of Dr Chapman, caused by the explosion of a bomb, time  
was not allowed for it to pass through the circulatory arc, to attain-  
ing its desired end; also the cases produced by poisoning from arsenic  
such is the

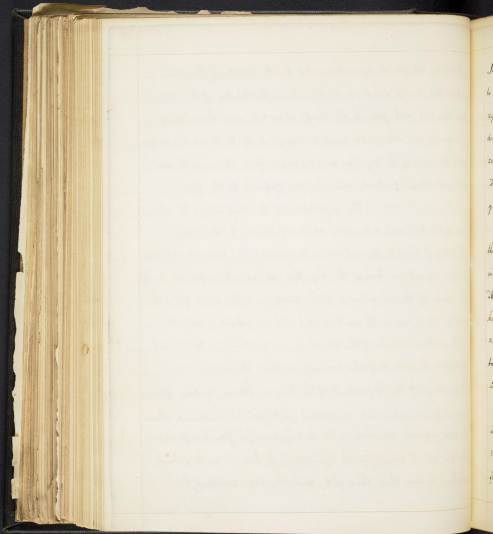


Should the bile enter the circulation, and be the cause of the colour of skin, there would not be such diversity in the shades of this, or would, more than one color pervade the body at one time, as in the cases of Langoni, and others, also would it confine itself to a particular part, while the rest of the system was exempt from it, as was the case with old Clean's patient, where it was confined to the feet.

The supporters of the doctrine of the absorption of the bile, must acknowledge these objections to their theory.

Provided if the bile was absorbed we would be eternally increased for there is not an hour in the day that it is not exposed to the action of the absorbents of the duodenum. I do not find this to be the case even in the most violent bilious attacks, where there is a constant increase of the secretion, as in Cholera. There is not one case on record of its occurring in this disease.

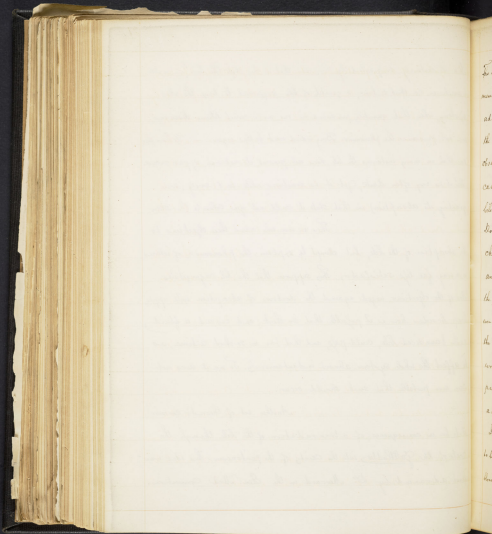
In speaking of the appearance of the liver in Idioms, we have often seen it found extensively disordered, and cases are mentioned where the whole internal structure was destroyed. Yet jaundice prevails. How are we to account for the appearance of jaundice in a patient who has a liver thus deranged, and this too, suddenly?



It would certainly be granted by every one, that in the start the liver is unable to secrete in so short a time, a quantity of bile sufficient to barge the whole system, when that quantity produced in our most violent bilious diseases, does not produce the phenomenon. Bile indeed must be this organ — We have also seen that in many instances the bile does not present its natural appearance. 'Tis it is very often dark, yet it is sometimes white, and sandy (even granting its absorption) in that state it could not give colour to the skin.

There are some who admit these objections to the absorption of the bile, but attempt to explain the phenomena of icterus in a way far less satisfactory. They suppose that the bile coagulates. Most of the objections urged against the doctrine of absorption will apply here, besides how is it possible that so thick and viscid a fluid as the jaundiced bile, could pass, and that too in so short a time, as to affect the whole system almost instantaneously. To me it does not seem even probable that such should occur.

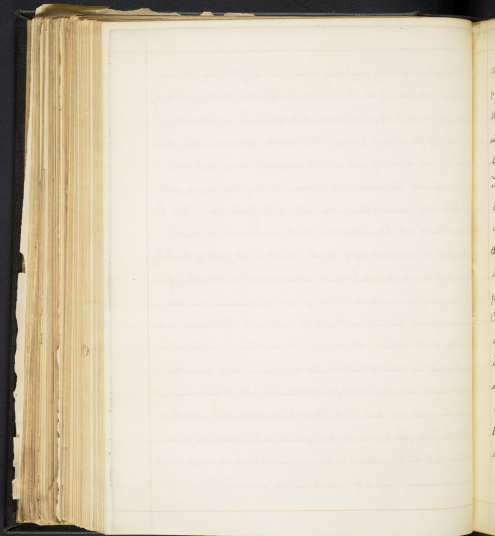
Another set of theorists conceive it to be in consequence, of a transudation of the bile through the coats of the Gallbladder into the cavity of the peritoneum. This idea was first advanced by Dr. Mercator in the Gen. Med. Conventions.





The bile says he is of a very penetrating nature, and the Gallbladder, like every membranous structure of the kind is porous. This theory is supported by adducing morbid appearances, which we observe on examining the bodies of diseased persons. This morbid appearance may be observed in our dissecting rooms. Not infrequently do we meet with cases, where all the viscera of the abdomen are completely tinged with bile that has seeped through the coats of the Gallbladder. But the Doctor could not have remembered, that membranes are much changed in structure after death, as well as all parts of the body, and that this could arise from adventitious, in accounting for the phenomena of Jaundice, than the presence of bile in the duodenum after death, can we it possible this could seep through the coats of the Gallbladder into the cavity of the abdomen, the presence of so stonishing a substance there would excite a series of such violent symptoms, as to destroy the patient before absorption could possibly remove it. Dr. Chapman mentions a yet more untenable doctrine, to which he at once renders an anathema.

They have to quote his own words, he says "The phenomena are considered to be owing to the liver being altered in structure, or function, and that the materials of the bile in the blood are not absorbed; but says the Dr. "can there be a more before speculation?"



the elements of life are not life, — which is a peculiar fluid, the product only of the secretory action of the liver, and can <sup>exist</sup> ~~never~~ until the blood is subjected to its secretory process." Thus have we presented in as brief a manner as possible the various theories that have been advanced to explain the different phenomena of jaundice.

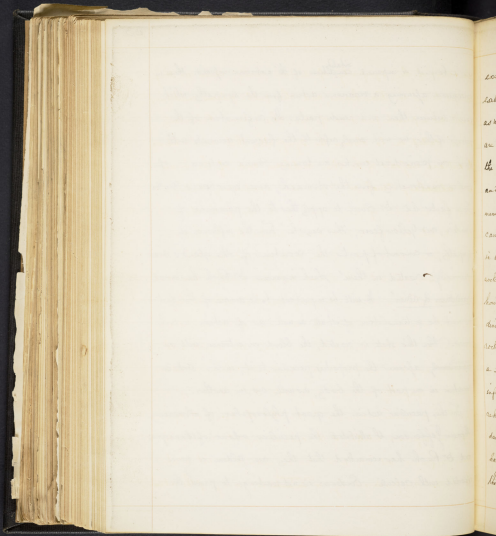
Many of them have their advocates even at the present day. But it yet remains for me to state what I think to be the most correct view of the proximate cause of the disease, — at the same time disclosing my conviction to a doctrine which has not until lately been fully expounded, and universally promulgated. We are indebted to the ingenuity of professor Chapman for the view of the subject which I shall take, and not a little light has been thrown on the subject by the indefatigable exertions of the invincible Dr. Swell. To his experiments I owe much. By each of these gentlemen we are called on to seek for this disease in some other organ or tissue than the liver, and by each we are referred to the extreme vessels.

By Dr. Chapman we are told it depends

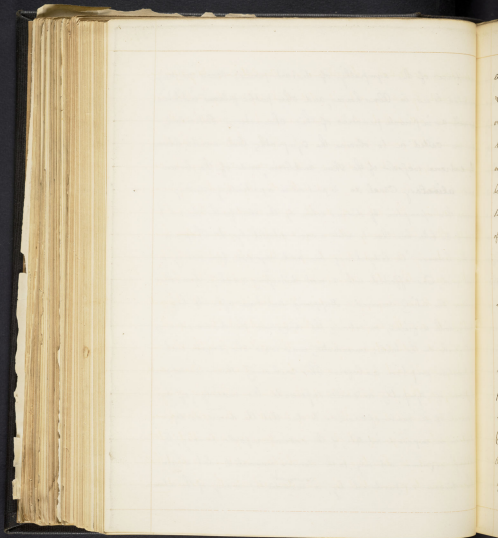


upon a torpid or impaired <sup>stability</sup> condition of the extreme vessels. These in consequence assuming a vicarious action from the sympathy which exists between them and remote parts. In confirmation of the justness of this, we will merely refer to the frequent accounts with which our periodical works are teeming of men's eyes, of females' menstruating from the stomach, rose eyes &c. &c. These facts led Dr. Swell to apply this to the phenomena of jaundice, and yellow fever, thus says he "From the influence of sympathy, or consent of parts, the secretions of other glands are occasionally created in them" Such instances Dr. Rush has termed "Translocation of action". It will be important, to be aware of the fact, that must be a translocation of state as well as of action in such cases. When this state is created, the blood on entrance, will as <sup>necessarily</sup> ~~expressly~~ assume the properties peculiar to it, in that state or condition in one part of the body, as well as in another.

In this peculiar action the great philosopher of America, Thomas Jefferson, attributed the peculiar odour of the negro; and Dr. Rush has remarked that they are seldom or never affected with scurvy. Evidence is not wanting to prove the

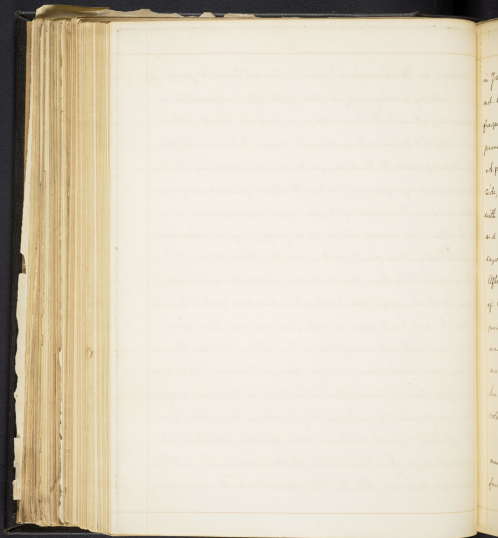


existence of the sympathy of distant parts; cases are daily exhibited to us in Almshouses, and other public places institutions, as well as in private practice of this character. Physicians, as we are called on to observe the sympathy that exists between the extreme vessels of the skin and brain, and of the brain and reliefing Canal. To point out in a particularly striking manner, this assumption of disease action by the skin for the stomach I cannot do better than to relate a case detailed by Dr. Chapman in his lectures. "A lady having been made very sick from eating a rack fish, was affected with a most distressing rash, from which however she entirely recovered. Happening some time after to be dining with a friend, on entering the dining room she discovered a rock fish on the table; immediately was was she seized with a similar eruption as before. This conclusively shows the extreme influence of sympathy, and will supersede the necessity of a rehearsal of a number of cases. To show that the disease is dependant on an impaired activity, of the extreme vessels, is easy; by having reference not only to the causes enumerated, but also the disease is produced by, or <sup>consequent</sup> ~~subsequent~~ to; many of the symptoms.



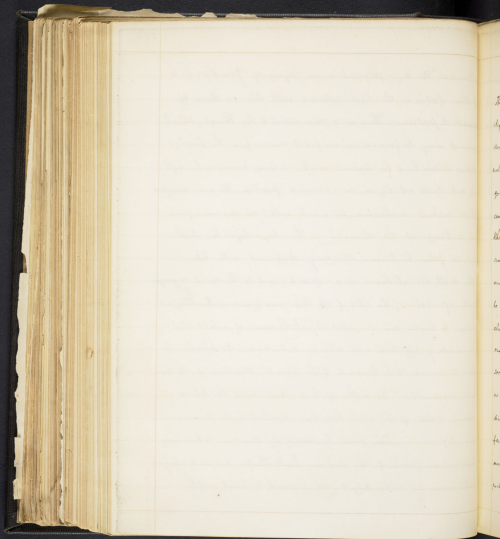


eruptions, as Rubella, Small pox, Scarlatina, Erysipelas  
 &c. and by inducing a torpid state of the vessels by a blow on  
 otherwise, all intent doubt can be a partial Jaundice. We  
 have seen that poisons will produce it whether taken into the sto-  
 mach or applied to the skin; in the one case affecting the ce-  
 lomic vessels by sympathy, and in the other by directly impairing  
 their action. The action of death often produces this color  
 of the skin, the becoming shone of a perfectly yellow ~~skin~~ face.  
 This certainly does not depend upon the absorption of bile:  
 It is said that the shone permeates all parts of the body,  
 even the brain, lungs, pericardium, &c. have been found tinged.  
 But to use the language of authors, 'are not parts thus equally  
 supplied with extreme vessels. The yellowness of the skin in  
 many malignant fevers, arises from a similar cause and  
 perhaps, that peculiar color of the skin in Chlorosis may  
 thus be accounted for. It is very evident in the yellow fever,  
 (the gastric origin of which is now generally admitted) Dr  
 Underwood in his treatise on children, mentions a fact that  
 goes far to prove, that the bile does not enter the circulation



in Jaundice; The same pregnant women dying of Jaundice, had not their foetus in the last coloured with bile, as shown by frequent dissections. There is a case related by Bingle, which proves it may be formed in a part remote from the liver; a poor soldier had for several weeks a large tumour on his right side, and could not lay in an extended position. He was distressed with a constant inclination to vomit, with an uneasy pain and sickness at the stomach. Three days before his death says Sir John he became suddenly suffused with bile. After death the abdomen was opened, and to the great surprise of the spectators, the whole of the liver was found sclerotic, and presented a similar case illustrated by Mr. Bauman of a child that was suddenly affected with icterus and died. On dissection it was discovered that the whole of the internal structure of the liver had degenerated. In neither of these cases could the bile or colouring matter of the skin, have been excreted by the liver.

Time would be needlessly spent in advancing one proof in favour of this doctrine, I will therefore suspend any further remarks on the subject and proceed to treat of the



### Prognosis of Jaundice

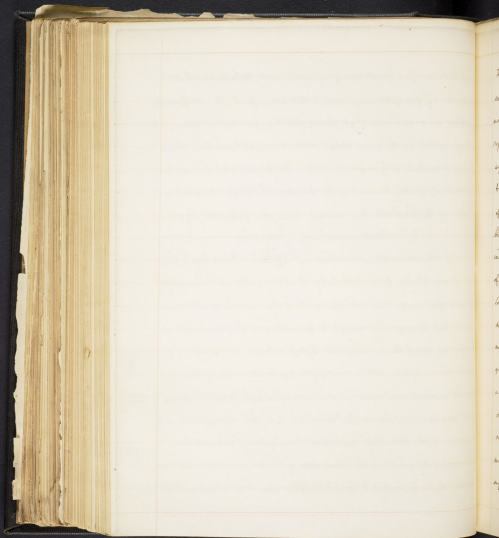
This must be always difficult, the becoming precarious, and the issue diffused, according to the nature of the case. (It should always take into consideration the age, sex, constitution, and habit of the patient, as well as the nature of the symptoms. When the disease occurs in children, otherwise in good health, the case is venial, but should the case be of long standing, and complicated with any extensive functional derangement, the issue will be doubtful. When it attacks the aged and infirm, the id. or debauched (it then being most commonly affected) complicated with toxic affections of some viscus, (the stomach most often) or when it has been of long standing in these situations, we are to suspect a doubtful issue. In green and black Jaundice, our prognosis should never always be unfavourable. The lighter the skin the greater hopes we may have of our patients recovery. A few promising Jaundice is said to be squamous. The sooner the fever ceases in the disease the better. Long continued fever is unfavourable, as well as attacks attended with some symptoms, and of frequent occurrence. Colicative alvine discharges, great prostration of strength, indigestion, hectic fever &c. All indicate an unfavourable termination. Itching, or vomiting and purging of dark greenish blood, are usually mortal symptoms. It has been stated by some writers that a crisis produced by Ague and Malaria, or pregnancy, are most apprehended with a bad danger. This is contrary to Dr. Boerhaave's opinion.



he says he has intefused several cases of very acute jaundice. Reberda says that jaundice arising from Gallstones, is acute, or but seldom fatal. The most favourable symptoms, are a subsidence of all gastric irritation, more natural feces, and a heavy deposit in the urine, (brown evacuations, as haemorrhages from the nose, or rectum, or by perspiration, or from the kidneys, or bowels, are said to be critical, quickly terminating the disease). Abilious diarrhoea, or a return of the bowels to their natural state, are favourable signs.

### The treatment of Jaundice

It is not without some degree of diffidence, I enter upon this part of my essay. Such a variety of medicines have been recommended, and not a few as specifics, that the most of them are entirely vain preparations. That the experiments are apt to be mislead in the treatment of the disease; most of them too, supported by high authority, such a variety of fondness this disease affords, that it is not possible to point out one mode of treatment that will answer in every case. Yet it is not my design to trace it through all its wanderings; it is not fit I should give more than a brief detail of those articles of the Materia Medica which have, according to my judgment been most successfully used. In the initial state of Jaundice, arising from what it may, bleeding should be resorted to, except in cases when it is contraindicated by





The disease in this state requires the most prompt and efficient means of cure, even when there is apparently a great prostration of strength, it should not prevent us from pursuing the depleting plan of treatment; for says an author of great repute, "when there is much pain, full head pulse, or pultious habit, and other symptoms indicating inflammation either threatened, or present. The great prostration of strength in the commencement should not deter us from the use of the lancet; the danger is more apparent, and is relieved by the loss of blood. However if the disease is allowed to continue its course, the symptoms increase till death. I do not pretend to deny the benefits arising from the use of the lancet. The loss of blood from the general system, acts by relieving local congestion, and inflammation; establishing an equilibrium causing a determination to the extreme vessels, and <sup>ultimately</sup> afterwards causes whatever medicine we should afterwards give, to act more promptly, and with greater safety and effect. Should evacuation not relieve the patient, we may resort with advantage to the warm bath, or warm frictions. These are of the utmost importance and may be resorted to, when the loss of blood will not be born, and even in conjunction with venesection; the patient in an informed should remain in the warm bath until threatened with syncope. The warm frictions are best employed, by applying flannel cloths dipped in warm water, to the



affected part, or a bladder filled with warm water; the latter should be frequently removed. Cups, or leeches, are valuable remedies in attacks of Gonorrhea. These have perhaps the advantage, their action not being so painful to the patient as the cups. These remedies though calculated for most cases, are probably better adapted to the aged, and intemperate, with various constitutions. As a substitute for the cups and leeches, we may resort to ~~irritation~~<sup>irritation</sup> by unguent catenches, red liniment, &c; when all these have been tried in vain, we may often resort with advantage to some of the narcotics, and above all the opium should be preferred. In that highly irritable state of the stomach, the form of an "old opium pill" will be found to answer perhaps better than any other. It is said to be of most advantage in those cases which in patients not liable to opiumetic complaints. We should not forget to mention the form of an emulsion to the stomach without bear the opium, (though) others of the class of antispasmodics, have been used and are perhaps admissible here. Dr. Chapman does not seem to place much reliance on the narcotics, he says he merely uses them to relieve pain and produce relaxation. Of aëtics I shall say but little, they have been fully confided in from the earliest ages, yet I conceive them to be useless and in a majority of cases injurious.

This I would infer from the view of the pathology of the disease I have

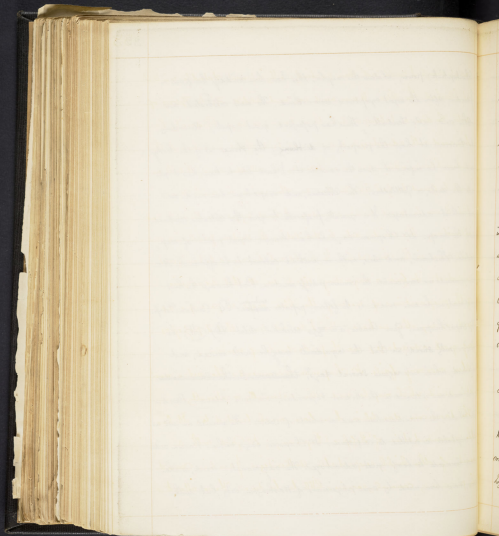


believe Most writers recommend them to be used with great caution. Some  
advise repeated emetics, and my preceptor Dr. Smith, says it is the most successful  
mode of treating the disease. I do not case where we have no means to suppress the  
bilious colic to be of very great use, and the pain is not very acute, we may  
revert to the emetics with advantage; but in cases, says Thomas, where the col-  
iculus is large, and there is fever, these (emetics) are injurious to the patient.  
When with the above we have given our patient relief, from the most violent  
and distressing symptoms, we should resort to purgatives. Some will  
pretend to deny the propriety of this class of remedies. These well earned fame  
has caused them to be universally employed. There is a choice to be made in  
selecting the kind of purgative; some recommend the drastic, while others with more propriety  
the milder kind, as the neutral salts, &c. &c. Dr. Chapman says as a general rule  
the treatment consists in keeping up a pretty constant impression on the primæ  
viæ, by purgatives, with which join the usage of bitter oil (the juniper  
colic) is well entitled to notice, combined perhaps with calomel would  
be preferable. There is yet a class of remedies that have long been reputed as  
lithontripticks, some doubt must exist as to the mode of action of these  
remedies. I am inclined to believe that their action is not that of a mild  
purgative. Boerhaave says there is no medicine purgative of this



(Althorp's) proving, whatever this may be, they have been decidedly beneficial in  
 Jaundice, after the usual symptoms were relieved. The most celebrated are  
 Elix and al. Terribili. This has possessed great reput. According  
 to Darwin it has the property of ~~destroying~~ the stone out of the body  
 and hence he infers it does the same in it. I shall like to know how it gets  
 into the duct, or Gallbladder? The Alkalies, and soaps have been used and  
 not without advantage. It is generally preferable to give the Alkalies combined  
 with the soaps. Dr Chapman says he has known equal parts of soap,  
 caustic Chloride, and ashes, with or without alcohol to be effectual. He  
 also recommends as convenient the common potato mixture. But he says the best  
 preparation he ever used is the following popular <sup>recipe</sup> ~~recipe~~ P. Carbon: Potash:  
 ʒj. Sapo Sapon: Gum Arabic aa ʒj. Alcohol: Dist. ʒj. (M) to  
 be frequently stirred, so that the ingredients may be well mixed, and  
 displaced, which will require several days, ~~then pour to the same mode.~~

This medicine is listed in the Medical Dispensary, Antidota Detra. Besides  
 the alkalis, the acids have been and are advocates of Calculi. The mineral as well as  
 the vegetable is entitled to confidence. Dr Chapman says he has known acids  
 and benzoate to be of great advantage. The oxymuriatic acid, or Clo-  
 rine, has been used by some physicians of Washington City, but with





what except I could not learn positively. My informant stated to me that it bleached the skin. It was used very much diluted 7i to 3iij of water. He dose a tablespoonful three times per day. Electricity has been used with advantage. The shock we are told should pass through the darker skin. Mercury is our next remedy in all these cases, it will no doubt be found to fail less often than any other remedy in Crime Cases.

But it can be used to no advantage I should suppose in the acute and inflammatory. This remedy acts by stimulating the system, producing an equilibrium in the circulation. It should not be carried to too great an extent, its first or 'mingering' effects are all that we require. Of the preparations of mercury the blue mass is perhaps as good as any other we have; tho' I do not know that it possesses any great advantages over the protochloride of mercury.

When mercury fails Dr. Chapman recommends the nitro-muriatic acid, which may be used either externally or internally.

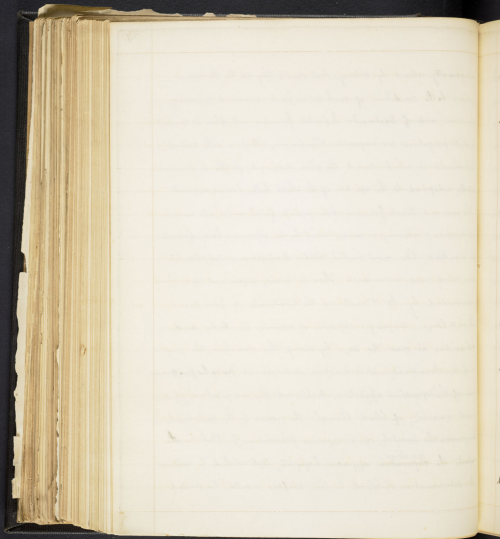
The banianum dandelion has been much trusted to. It has the recommendation of Professor Chapman, Dr. Good, with a variety of other highly respectable authorities. Jaundice caused by pregnancy commonly requires little to be done. These attacks

\* The dose of this is half a wine glass to be taken for three successive  
 mornings, fasting, and if not relieved, omit it for one day then recur to  
 the same mode.

are generally relieved by delirium. But should they not be the case is reduced to the condition of such as we have described requiring the same mode of treatment. Infantile Jaundice will often be removed by slight purgatives, as magnesia Rheubarb, with or without calomel; but should it not be cured, the plan advised for this disease in adults, adapted to the age &c. of the child shall become requisite.

The green and black Jaundice, have proved fatal under all modes of practice; mercury is under said to be injurious here; fatal to mankind, like most violent, and dangerous complaints these are of rare occurrence. There is a very ingenious apparatus recommended by Dr. Keil in the treatment of Jaundice.

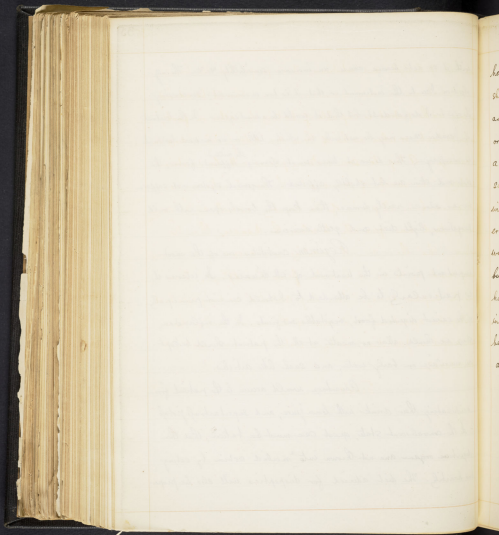
It is a large air pump, capable of receiving the body and extremities at once. The says by using this machine, the pressure of the atmospheric air may be so reduced, as to be productive of the greatest effects. Might not the evacuation of a small quantity of blood through the pores by the instrument supersede the necessity of a copious phlebotomy? But in the respects the <sup>operation</sup> ~~operation~~ appears happily calculated to relieve. A determination of blood to the surface would be created



with it so as to become cause an increase sensibility &c &c. The only objection I see to the instrument is, that it is too inconvenient; concerning its effects I do not doubt, but that it would be advantageous. In the treatment of jaundice cases may be met with in which, little or no medical treatment is necessary. Thus we at times see it assuming <sup>its milder</sup> different forms, the eyes and skin are but slightly affected. The general system not suffering - no edema, rarely dropsy, then keep the bowels open with mild purgatives, light diet and gentle exercise.

Regimen constitutes one of the most important points in the treatment of all diseases. In icterus it is particularly to be attended to. It should consist principally of the easiest digested food, vegetables and fruits. In the inflammatory stage we should allow no meats at all the patient should be kept on mullage or barley water, and such like articles.

Advantage would accrue to the patient from acidulating their drinks with lemon juice, and supporting the stomach in the convalescent state, great care must be taken, that their digestive organs are not thrown into morbid action by eating too heartily. The diet advised for dyspeptics will also be proper



here, At it belight and seditions: it is proper that the bowels should belight open by mild aperients. Exercise should be advised as soon as the patient is capable of taking it, either on foot, or horseback, or when neither of these are admissable riding in a carriage. A trip to some watering place, will be sometimes salutary. The variety of amusements, the social intercourse with persons from all parts of the country, as well as the exercises, tend more generally to relieve the disease, than the waters, tho' there are not wanting instances of the disease being cured by the use of the waters from these things. Thus have the sulphur springs been long celebrated, as being effectual in Hepatic affections, and most of the mineral waters have been useful in jaundice, Seltzer water has been used with advantage—

Tunis

